

Non-technical Abstract

Many types of cancer cannot be cured by traditional medical treatments, including drugs, surgery, or radiation. In this study, an experimental treatment will be offered that may help to fight this disease. We will attempt to induce tumor regression by the introduction of genetic material that directs the synthesis of proteins which stimulate the immune system. The genetic material, DNA, will be introduced directly into the tumor by mixing it with fatty substances, or lipids, and this mixture will be injected into the tumor. The DNA will be taken into cells and cause them to produce proteins that stimulates tissue rejection. These proteins, called histocompatibility proteins, cause cells which contain it to be recognized as foreign by the immune system. The goal of the treatment is to stimulate the immune system to attack and kill the tumor. In this study, we will attempt to determine the optimal safe and effective dose to administer the DNA/lipid complex. Increasing amounts of this complex will be used in different patient populations. If no side effects are observed, repeated treatments will be instituted. The expression and nature of the immune response will also be characterized. This treatment may provide a therapeutic effect in cancer and could be applied to the treatment of other diseases.